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CENTRAL FAX CENTER****NOV 07 2005**ATTORNEY DOCKET NO. SHAPE/SCH  
Serial No.: 09/681,948**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant	:	Scott C. Harris	Group Art Unit 2625
Appl. No.	:	09/681,948	
Filed	:	June 29, 2001	
For	:	IMAGE COMPRESSION BY OBJECT SEGREGATION	
Examiner	:	Y. J. Couso	

Pre-appeal brief request for reviewUnited States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant requests review of the final rejection in the above referenced application. No amendments are being filed with this request. However, this request is being filed with a notice of repeal.

The attached request summarizes the reasons for review in five pages or less,  
as required.

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## CERTIFICATE OF FAX TRANSMISSION

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Claims 1-8 and 14-17 stand rejected under 35 USC 101 as allegedly being directed to nonstatutory subject matter. This contention is respectfully traversed. With all due respect, the standard being used for this rejection is incorrect. Apparently, the rejection is based on the fact that someone could carry out the process in their head, rather than whether it is actually carried out in someone's head.

In Diamond v. Chakrabarty, 447 US 303 (1980), the Supreme Court held that 35 USC §101 covered "anything under the sun that was made by man". Diamond at 308. The only exclusions are laws of nature, physical phenomena, and abstract ideas. *Id.* The analysis carried out herein is not a law of nature. The analysis carried out herein requires analyzing and replacing, and therefore interacts with the real world, and as such is not an abstract idea. The fact that parts of this could be carried out in one's head does not make it an abstract idea – it interacts with the physical world. A physical phenomena would require that it was something that actually occurred as a phenomenon, which certainly is not the case for these claims.

Accordingly, the contention that claim 1 is not statutory subject matter is plainly antithetical to law on the subject matter.

The steps of analyzing and replacing, moreover, are physical steps that are carried out in the real world. The fact that one interpretation of these claims could include this being carried out in one's head would not make the process nonstatutory. In any case, claim 1 requires replacing objects in the image, which could not be done in one's head. Claim 14 requires storing "...image portions... in the database" which again could not be carried out in one's head. With all due respect, this interacts with the real world, and therefore is a real statutory process. Moreover, claim 14 require storing a list

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of image portions, and the act of storing a list certainly requires interaction with the real world, and therefore is also statutory.

Claims 1-3, 6 and 8-13 stand rejected under 35 U.S.C. 102(e) as allegedly being unpatentable over Matsugu. This contention is respectfully traversed, since nowhere does Matsugu teach anything about recognizing "actual objects" within the image. The rejection alleges that the feature elements are Matsugu are "actual objects" within the image. This turns the meaning of the word "actual objects" on its head. The Random House College dictionary definition posed by the official action may be applicable to the word "object", but ignores the word "actual". Matsugu's objects are basic building blocks that are pieced together to form an actual object – they are not actual objects themselves. The feature elements, intersections and curve elements are not actual objects. The rejection attempts to read this word "actual" out of the claims.

Matsugu teaches a system for extracting feature elements from an image. The feature elements are effectively lines and curves within the image. A number of different feature elements can be brought together to form a mask, see generally column 7 lines 42-50. Note that the feature elements are not actually objects, but are rather items such as "L-type intersections and curve elements" see column 7 lines 44-45. In essence Matsugu takes an image and divides it into its representative parts: lines and curves, which it calls feature elements. These do not represent "actual objects", but instead represent parts which can be put together to assemble actual objects. Matsugu has no teaching or suggestion of recognizing the actual objects, as required by amended claim 1.

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Claim 9 recites that the database stores a plurality of image parts representing likely objects that may exist in the image, and that the image processing device recognizes these objects in the image that correspond to image parts in the database. The recognized objects are replaced with indications representing the recognized parts.

As described above, Matsugu recognizes the things he calls "features", which are lines and curves. There is no teaching or suggestion of recognizing actual objects, as claimed. Therefore, claim 9 should be allowable along with claims 10-13 which depend therefrom.

The dependent claims should be allowable for similar reasons. Claim 2 specifies providing individual part information indicative of how the actual objects differ from the unit objects. The rejection draws attention to column 5 lines 31-36 which explains using least mean squares to find out which feature element is closest to the reference feature element. There is no teaching or suggestion of providing differing information about this part. Instead of providing the differing information -- Matsugu simply uses least means squares to find the closest match.

Claim 3 specifies size and orientation relative to the unit parts. The rejection refers to Matsugu's column 5 lines 10-19 which explain the scaling parameter. However, Matsugu teaches nothing about the claimed orientation of the recognized parts.

Column 5 lines 9-16 does explain that there are different feature elements for the different intersection pattern and for different orientations, see column 5 line 19. Since Matsugu teaches a separate local feature element for a different orientation, it stands to

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reason that Matsugu teaches away from the subject matter of claim 3 which describes orientation difference information.

The corresponding dependent claims 11 through 13 should be allowable for similar reasons.

Claims 7 and 14-17 stand rejected over Matsugu in view of Ferguson. Referring to claim 7 first, the limitations of Matsugu have been extensively discussed above. Claim 7 further requires subparts of the actual object that include text. Ferguson teaches a computer-based document management system. Text can be obtained, as part of the scanning system. The document collection is organized into a hierarchy. The rejection refers to Figure 2A, which shows that a document represented by file 200 may have a number of different fields including a text field. This teaches nothing about recognizing the objects, as required by the claim, and as described above.

Moreover, with all due respect, one having ordinary skill in the art would not make a hypothetical combination of Ferguson in view of Matsugu. Matsugu teaches a local feature based system for converting an image into features. Ferguson teaches a document management system. There appears to be no similarity between the two. Only with the benefit of hindsight could the combination even be made. The rejection alleges that using Ferguson to update the Matsugu system would be obvious "to increase the reliability...". However, in fact, the only reason for making this combination is based on hindsight, since the two databases are entirely different kinds of databases.

Claim 14 requires looking for portions of the image were for not present in the database, and storing the list of the portions which are not found in the database to later be used to update the database. The rejection refers to Ferguson's column 6 lines

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18 through 30 to show this feature. This cited section states that the indexing database is continuously updated. With all due respect, this is an entirely different thing. Claim 14 requires that an image is analyzed, and portions of the image which are present are replaced by the contents of the database. The database is updated, so that more contents are present, for better image substitution.

Column 6 lines 18-30 describe that new documents are continually indexed. As explained, the index and retrieval engine "creates a new entry in the indexing database for the document". Indexing of a document is entirely different than updating image parts in a database. The claim recites looking for items in the image, and when they are not recognized, adding them to the database. Ferguson simply teaches creating an indexing database from the documents, basically a document indexer. If Matsugu and Ferguson could be operatively combined by a person having ordinary skill in the art, therefore, what they would obtain is a Matsugu type feature compression system along with Ferguson's teaching of forming an indexing for the items. There is no teaching or suggestion of storing the list of image portions which are not found in the database, as claimed.

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Respectfully submitted,

Date: 11/7/05

  
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